HILTI

X-UCS MX
DATA SHEET
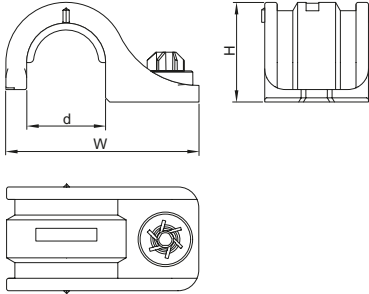
Universal conduit saddle

X-UCS MX Universal conduit saddle

Product data

Dimensions

X-UCS MX

Features and benefits

- • Easy and convenient installation to concrete (soft and tough) and sandlime stone base material
- • Quick, cost-efficient fastening

General information

Material specification

| X-UCS: | PE (halogen and silicone free), light grey RAL 7035, free |

Applications

Example

- Fastening flexible pipes and pipes with foam insulation for water and heating
- Fastening insulated injection hoses

The intended use only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres.

Load data

Recommended loads (Base material = concrete)

Fastener	Concrete / Sandlime stone N_{rec} [kN]
X-UCS MX	0.011

Design conditions:
- For pipes fastened with less than 5 fasteners and without any fixed end support, a test load has to be applied to each fastener, see Instruction For Use.
- All visible failures must be replaced.
- Predominantly static loading.
- Valid for soft and tough concrete with strength of $f_{c, cube}$ = 25-60 N/mm^2, that may contain medium sized aggregate e.g. limestone, pit gravel. please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).
- Valid for sandlime stone.
- Observance of all application limitations and recommendations.
- Long-term behavior of X-UCS MX plastic material considered.

Fastener capacity

Fastening designation	Pipe diameter [mm]	Recommended fastener spacing on ceilings and walls [cm]
X-UCS 19 MX	19.0	80
X-UCS 23 MX	23.0	60
X-UCS 27.5 MX	27.5	40
X-UCS 30.5 MX	30.5	30

Comments:
- Recommended fastener spacing is based on recommended load and average weight of intended pipes during duty

Nail recommendations

For **concrete** base material							
Fastening tool	**Nail types**	**Length [mm]**	**Tip**	**Shank Ø [mm]**	**Material**	**Hardness [HRC]**	**Coating [µm]**
BX 3 ME	X-P B3 MX	20 - 24	Balistic	3.0	Carbon steel	57.5	Zinc, 2-13 µm
GX 3 ME	X-P G3 MX					57.5	Zinc, 2-13 µm
GX120	X-GHP MX					57.5	Zinc, 2-13 µm

- • For the X-UCS MX element, only 20 mm and 24 mm pin lengths are recommended in order to ensure sufficient embedment depth.
- • Premium nails (as listed above) are recommended for wall and ceiling application (soft and some tough concrete and sandlime stone, GX/BX tools). For more details regarding nail classification and concrete types, please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).
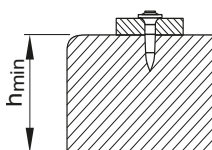
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BX 3 ME	X-C B3 MX	20 - 24	Cut	3.0	Carbon steel	56.5	Zinc, 2-13 µm
GX 3 ME	X-C G3 MX	20 - 27				56.5	Zinc, 2-13 µm
GX120	X-GN MX	20 - 27				53.5	Zinc, 2-13 µm

- • For the X-UCS MX element, only 20 mm, 24 mm and 27 mm pin lengths are recommended in order to ensure sufficient embedment depth.
- • Standard nails (as listed above) are recommended for floor application (soft concrete and sandlime stone, GX/BX tools). For more details regarding nail classification and concrete types, please refer to **Concrete Fastener Selection** section in Hilti Direct Fastening Technology Manual (DFTM).

Application requirements

Thickness of base material

Concrete
X-P B3 MX, X-P G3 MX, X-GHP MX, X-C B3 MX, X-C G3 MX, X-GN MX h_{min} = 60 mm

Edge distance

Min. edge distance = 70 mm

Corrosion information

Zinc-coated nails are not suitable for long-term service outdoors or in otherwise corrosive environments.

For further detailed information on corrosion see relevant chapter in **Direct Fastening Principles and Technique** section.

Fastener selection and system recommendation

Fastener program

Designartion	Item no.	d [mm]	W [mm]	H [mm]
X-UCS 19 MX	2161565	19.0	46.5	24.0
X-UCS 23 MX	2161566	23.0	50.5	28.0
X-UCS 27.5 MX	2161567	27.5	55.0	32.5
X-UCS 30.5 MX	2161568	30.5	58.0	35.5

Tool selection

X-P B3 MX, X-C B3 MX:	BX 3-ME
X-P G3 MX, X-C G3 MX:	GX 3-ME
X-GHP MX, X-GN MX:	GX 120-ME

System recommendation

GX 3-ME	Gas can GC 40, GC 41 and GC 42
GX 120-ME	Gas can GC 20, GC 21 and GC 22
BX 3-ME	No gas can required

Fastening quality assurance